UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/693,238	10/23/2003	Huamin Chen	YOR920030422US1	1434

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Ryan, Mason & Lewis, LLP
90 Forest Avenue
Locust Valley, NY 11560

EXAMINER
SALL, EL HADJI MALICK

ART UNIT	PAPER NUMBER
2457	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/693,238	CHEN ET AL.
	Examiner	**Art Unit**	
	EL HADJI M. SALL	2457	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _23 April 2009_.
2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-37_ is/are pending in the application.
  4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) _1-37_ is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  a)☐ All b)☐ Some * c)☐ None of:
    1.☐ Certified copies of the priority documents have been received.
    2.☐ Certified copies of the priority documents have been received in Application No. _____.
    3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
  * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)
1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
  Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
  Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1.   This action is responsive to the amendment filed on April 23, 2009. Claims

1-37 are pending. Claims 1-37 represent method and systems for dynamically

reconfigurable load balancing.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for

all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3.   Claim 1-35 and 37 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Shenoi U.S. 20040208120 in view of Borella U.S. 6,442,603.

Shenoi teaches the invention substantially as claimed including multiple

transmission bandwidth streams with differentiated quality of service (see abstract).

As to claims 1, 17, 29-31 and 37, Shenoi teaches a method, an apparatus, an

article of manufacture and a system for serving data to a plurality of clients in a client-

server environment, comprising the steps of:

assigning individual clients to one of a plurality of quality-of-service classes

(paragraph [0089], Shenoi discloses assigning quality of service classes to different

PVCs (i.e. "assigning QoS classes to clients"); and

satisfying requests so that a client belonging to a high quality-of-service class is given preferential access to data versions which require higher overheads to serve (paragraph [0117]).

Shenoi fails to teach explicitly providing a plurality of versions of data in which at least two versions have different overheads associated therewith.

However, Borella teaches methods for ordered delivery of electronic content. Borella teaches providing a plurality of versions of given data in which at least two versions of the given data have different overheads associated therewith (column 6, lines 21-34).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Shenoi in view of Borella to provide providing a plurality of versions of data in which at least two versions have different overheads associated therewith in order to allow adjusts the amount of electronic content presented to user based on determined network latency by using ordered delivery of electronic content (abstract).

As to claims 2 and 18, Shenoi teaches the method and the apparatus of claims 1 and 17, wherein the overhead to serve a version is correlated with a quality of the version (paragraph [0044]).

As to claims 3 and 19, Shenoi teaches the method and the apparatus of claims 2 and 18, and a client belonging to a high quality-of-service class is given preferential access (paragraph [0117]).

Shenoi fails to teach explicitly the multiple versions comprise images of different resolutions.

However, Borella teaches the multiple versions comprise images of different resolutions (column 1, lines 33-46).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Shenoi in view of Borella to provide the multiple versions comprise images of different resolutions in order to provide display having suitable image quality for improving the effectiveness of screening and diagnosis.

As to claims 4 and 20, Shenoi teaches the method of claims 2 and 18, wherein the quality of a version is correlated with a processing time required to create the version (paragraph [0022]).

As to claims 5 and 21, Shenoi teaches the method of claims 1 and 17, wherein the overhead to serve a version is correlated with how current the version is (paragraph [0106]).

As to claims 6 and 22, Shenoi teaches the method and the apparatus of claims 1 and 17, further comprising the step of: in response to a system load exceeding a

threshold, satisfying a higher percentage of requests from clients belonging to a lower quality-of-service class with a version requiring lower overhead to serve (paragraph [0093]).

As to claims 7 and 23, Shenoi teaches the method and the apparatus of claims 1 and 17, wherein the server comprises multiple nodes and different nodes provide data versions requiring different overheads to serve (paragraph [0073]).

As to claims 8, 9, 10, 11, 24, 25, 26 and 27, Shenoi teaches the method and the apparatus of claims 1, 8, 17 and 24, further comprising the step of implementing a quality-of-service policy that specifies at least one of content quality and latency (abstract), wherein one or more clients belonging to a premium service class are served with high content quality and low latency, wherein one or more clients belonging to a medium service class are served with one of high content quality and low latency, and wherein one or more clients belonging to a best-effort service class are served with unspecified content quality and latency (paragraphs [89-92]).

As to claims 12 and 28, Shenoi teaches the method of claims 1 and 17, wherein a client request is routed using at least one of an identity of the client, a quality of content, a load on at least one server, a data distribution on at least one server, and a capacity of at least one server (paragraph [0028]).

As to claims 13 and 14, Shenoi teaches the method of claims 1 and 13, wherein

a client is assigned to a quality-of-service class by program logic that is externalized

from the server, wherein the externalized program logic comprises a set of business

rules that can be modified by nonexperts in information technology (paragraph [0035]).

As to claims 15 and 16, Shenoi teaches the method of claims 1 and 15, further

comprising the step of satisfying requests using a policy determined by program logic

that is externalized from the server, wherein the externalized program logic comprises a

set of business rules that can be modified by nonexperts in information technology

(paragraphs [0035] and [0089]).

As to claim 32, Shenoi teaches the method of claim 31, wherein the data serving

service comprises a quality-of-service policy specification (abstract).   `

As to claim 33, Shenoi teaches the method of claim 32, wherein the quality-of-

service policy specification comprises: a plurality of subscriptions, each subscription

being specified by content quality and service latency, wherein a limited premium

service subscription is served with high content quality in low service latency, a medium

service subscription is served with a high content quality or a low service latency, and

an unlimited best-effort service subscription is served with unspecified content quality

and latency (abstract; paragraph [0007]).

As to claims 34 and 35, Shenoi teaches the of claims 31 and 34, wherein the

service provider modifies data content and how the data content is served to clients in

response to one or more changing conditions (paragraph [0030]).

4.   Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Shenoi et al. U.S. 20040208120 in view of Borella U.S. 6,442,603, further in view of Huff

U.S. 20040003080.

Shenoi teaches the invention substantially as claimed including multiple

transmission bandwidth streams with differentiated quality of service (see abstract).

As to claim 36, Shenoi teaches the method of claim 31.

Shenoi fails to teach explicitly the step of assigning individual clients to one of a

plurality of quality-of-service classes is based on a client payment.

However, Huff teaches method and system for managing quality of service in a

network. Huff teaches the step of assigning individual clients to one of a plurality of

quality-of-service classes is based on a client payment (paragraph [0012]).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to combine Shenoi in view of Huff to provide the step of assigning

individual clients to one of a plurality of quality-of-service classes is based on a client

payment. One would be motivated to do so to allow identifying relative priorities of the

clients (abstract).

Response to Arguments

5.   Applicant's arguments with respect to claim 1-37 have been considered

but are moot in view of the new ground(s) of rejection.

Conclusion

6.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of

time policy as set forth in 37 CFR 1.136(a).

Examiner has cited particular columns and line numbers in the references

applied to the claims above for the convenience of the applicant. Although the specified

citations are representative of the teachings of the art and are applied to specific

limitations within the individual claim, other passages and figures may apply as well. It

is respectfully requested from the applicant in preparing responses, to fully consider the

references in entirety as potentially teaching all or part of the claimed invention, as well

as the context of the passage as taught by the prior art or disclosed by the Examiner.

In the case of amending the claimed invention, Applicant is respectfully requested to

indicate the portion(s) of the specification which dictate(s) the structure relied on for

proper interpretation and also to verify and ascertain the metes and bounds of the

claimed invention.

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to El Hadji M Sall whose telephone number is 571-272-4010. The examiner can normally be reached on 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on 571-272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/El Hadji M Sall/

Examiner, Art Unit 2457

/Salad Abdullahi/

Primary Examiner, Art Unit 2457